# **Open Center Turbine**

## Development Stage: Demonstration



Turbine One at Palatka Facility

## **Product Description**

Our open center turbine is in and of itself a generator. Its blade is the rotor and its housing is the stator. When the water rotates the blade, 3 phase electricity is produced directly from its housing.

Product Highlights					
Standard Unit Design Capacity	500 kW	Design Working Environment  Natural waterways			
Other sizes currently available	Yes	<ul><li>☐ Water transmission systems</li><li>☐ Effluent streams</li></ul>			
Characteristic Dimension	28 ft	<ul><li>■ Tidal estuaries</li><li>□ Near shore ocean</li><li>■ Off-shore ocean</li></ul>			
Rotational Axis Orientation	Horizontal, parallel to flow	<ul><li>□ Deep ocean</li><li>■ Other ocean current (Gulf Stream)</li></ul>			

## Product Specifications/Details (Standard Unit)

#### • Performance Specifications:

Category	Minimum	Maximum	Units
Flow range	6.5	25	ft³/sec
Hydraulic head range	3	200	ft
Power output range	10	5,000	kW
Waterway depth	36	1,000	ft
Waterway width	50	100,000	ft

• Efficiency: Turbine: 59% Total System: 50%

#### • Deployment Locations:

- Saint John's River, Palatka, FL
- Florida Gulf Stream (Palm Beach)

#### Operating History:

- Prototype 1 (10 ft dia.) was towed (tested) in the Saint John's River, Palatka, FL in 1995
- Prototype 2 (10 ft dia.) was tested in the Florida Gulf Stream (Palm Beach)
- Turbine one (production 10 ft dia.) is currently being tested and should be ready for commercial production in October 2004
- System Dimensions (feet): 50 (L)  $\times$  12 (W)  $\times$  35 (D)
- Unit Price (U.S. dollars): \$208,000

### Company Contact Information

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## Company Profile

Years in Business 6-10 years
Number of Employees 6-20 employees
Annual Equipment Sales less than \$1000